

# The obsolete `EverySel` package<sup>\*</sup>

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## Why you should no longer use this package:

This packages provides hooks into the NFSS-command `\selectfont` called `\EverySelectfont` and `\AtNextSelectfont` analogous to `\AtBeginDocument`. In January 2021 the hook management L<sup>A</sup>T<sub>E</sub>X provides since autumn 2020 the kernel directly contains these hooks. Information on their usage can be found in the the corresponding documentation for `Ihooks[1]` and look for Hooks provided in NFSS command. We only provide this package to allow backwards compatibility. For current versions of L<sup>A</sup>T<sub>E</sub>X it's only mapping the hooks to the original `everysel` macros. In case you use an older L<sup>A</sup>T<sub>E</sub>X format, `everysel` will automatically fallback to its' old implementation by loading `everysel-2011/10/28.sty`.

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## 1 Introduction

This package provides the hooks `\EverySelectfont` and `\AtNextSelectfont` whose arguments are executed just after L<sup>A</sup>T<sub>E</sub>X has loaded a new font using `\selectfont` (which means that it will be executed after *every* font loaded via NFSS).

An example application would be a package for setting ragged text which needs to distinguish between monospaced and proportional fonts. Such a package exists: `ragged2e[3]`.

---

<sup>\*</sup>The version umber of this file is v2.0.

The name `EverySel` is a tribute to the 8 + 3 file-naming convention of certain “operating systems” and their “file systems”; strictly speaking it should be `EverySelectfont`.

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## 2 Usage

\EverySelectfont \EverySelectfont{\langle code\rangle} declares *⟨code⟩* that is saved internally and executed just after *each* \selectfont.  
*Warning:* The *⟨code⟩* is saved globally; there is currently no way to remove it.

\AtNextSelectfont \AtNextSelectfont{\langle code\rangle} declares *⟨code⟩* that is saved internally and executed just after *and only the next* \selectfont.  
 Repeated use of the commands is permitted: the code in their argument is stored (and executed) in the order of their declarations.  
 The argument of \AtNextSelectfont is executed *after* the argument of \EverySelectfont.

## 3 Options

The package has no options.

## 4 Required packages

The package requires no further packages.

## 5 The implementation

```

1 <*package>
2 %   \raggedright
3 %   \begin{macrocode}
4 \providecommand\IfFormatAtLeastTF{\@ifl@t@r\fmtversion}
5 \IfFormatAtLeastTF{2021/01/05}{}{\input{everysel-2011-10-28.sty}}
6 \IfFormatAtLeastTF{2021/01/05}{}{\endinput}
7 \newcommand*{\EverySelectfont}[1]{\AddToHook{selectfont}{#1}}
8 \newcommand*{\AtNextSelectfont}[1]{\AddToHookNext{selectfont}{#1}}
9 </package>
```

### 5.1 The original implementation by Martin Schröder

To provide compatibility for older L<sup>A</sup>T<sub>E</sub>X formats we wrap the original implementation of `everysel` version 1.2 into the fallback package `everyshi-2011-01-10`.

#### 5.1.1 Allocations

First we allocate the hooks

\@EverySelectfont@EveryHook The code to be executed just after the normal \selectfont.

```

10 <*fallback>
11 \newcommand{\@EverySelectfont@EveryHook}{}>
```

\@EverySelectfont@AtNextHook The code to be executed just after the normal \selectfont and \@EverySelectfont@EveryHook.

```
12 \newcommand{\@EverySelectfont@AtNextHook}{}>
```

### 5.1.2 The user-visible commands

```
\EverySelectfont These commands are modeled after \AtBeginDocument.
\AtNextSelectfont
13 \newcommand*{\EverySelectfont}[1]
14   {\g@addto@macro{\EverySelectfont@EveryHook{#1}}}
15 \newcommand*{\AtNextSelectfont}[1]
16   {\g@addto@macro{\EverySelectfont@AtNextHook{#1}}}
```

### 5.1.3 Inserting the hooks

The hooks are placed *inside* `\selectfont`. Unfortunately for us there are *two* versions of `\selectfont` in normal L<sup>A</sup>T<sub>E</sub>X: One is defined in the kernel and the other by the package `tracefnt`[2]. The CJK also redefines `\selectfont`. So we have to check for three versions.

`\@EverySelectfont@Init` We do this in the macro `\@EverySelectfont@Init`, which is executed just after `\begin{document}` (with the aid of `\AtBeginDocument`), when we know for sure which version of `\selectfont` we have to overload.

```
17 \newcommand*{\@EverySelectfont@Init}{%
18   \message{ABD: EverySelectfont initializing macros}%
}
```

We have to distinguish three cases: `tracefnt`, CJK and everything else.

```
19 \ifpackageloaded{tracefnt}{%
```

And we have a problem: `\selectfont` is defined using `\DeclareRobustCommand`, which really defines `\selectfont`. So instead of simply using `\CheckCommand` we also have to use `\expandafter` and `\csname... \endcsname`.

```
20   \expandafter\CheckCommand\csname selectfont \endcsname{%
21     \ifx\f@linespread\baselinestretch \else
22       \set@fontsize\baselinestretch\f@size\f@baselineskip \fi
23     \xdef\font@name{%
24       \csname\curr@fontshape/\f@size\endcsname}%
25     \pickup@font
26     \font@name
27     \ifnum \tracingfonts>\tw@
28       \font@info{Switching to \font@name}\fi
29     \size@update
30     \enc@update
31   }%
32 }
```

The case with CJK

```
33 \ifpackageloaded{CJK}{%
34   \expandafter\CheckCommand\csname selectfont \endcsname{%
35     \ifx\f@linespread\baselinestretch \else
36       \set@fontsize\baselinestretch\f@size\f@baselineskip \fi
37     \xdef\font@name{%
38       \csname\curr@fontshape/\f@size\endcsname}%
39     \pickup@font
40     \font@name
41     \expandafter\ifx\csname CJK@\curr@fontshape\endcsname \relax
42     \else
43       \CJK@bold@false
44       \csname CJK@\curr@fontshape\endcsname
```

```

45      \fi
46      \size@update
47      \enc@update}%
48  }{%

```

Now the default (no tracefnt and no CJK).

```

49  \expandafter\CheckCommand\csname selectfont \endcsname{%
50      \ifx\f@linespread\baselinestretch \else
51          \set@fontsize\baselinestretch\f@size\f@baselineskip \fi
52          \xdef\font@name{%
53              \csname\curr@fontshape/\f@size\endcsname}%
54          \pickup@font
55          \font@name
56          \size@update
57          \enc@update
58      }%
59  }%
60 }%

```

After the checks we can be sure we have the correct version of `\selectfont`, so we redefine it with our hooks.

```

61  \DeclareRobustCommand{\selectfont}{%
62      \%
63      \ifx\f@linespread\baselinestretch \else
64          \set@fontsize\baselinestretch\f@size\f@baselineskip \fi
65          \xdef\font@name{%
66              \csname\curr@fontshape/\f@size\endcsname}%
67          \pickup@font
68          \font@name
69          \@@EverySelectfont@@EveryHook
70          \@@EverySelectfont@@AtNextHook

```

We have to reset `\@@EverySelectfont@@AtNextHook` after each use.

```

71      \gdef\@@EverySelectfont@@AtNextHook{}%
72      \size@update
73      \enc@update
74  }%

```

The additions of tracefnt to `\selectfont` can be implemented using `\@@EverySelectfont`.

```

75      \@ifpackageloaded{tracefnt}{%
76          \@@EverySelectfont{%
77              \ifnum \tracingfonts>\tw@%
78                  \@@font@info{Switching to \font@name}\fi}%
79      }{}%

```

The additions of CJK to `\selectfont` can be implemented using `\@@EverySelectfont`.

```

80      \@ifpackageloaded{CJK}{%
81          \@@EverySelectfont{%
82              \expandafter\ifx\csname CJK@\curr@fontshape\endcsname \relax
83                  \else
84                      \CJK@bold@false
85                      \csname CJK@\curr@fontshape\endcsname
86                  \fi}%
87      }{}%

```

Since `\@EverySelectfont@Init` should only be used once it is self-destructing.

```
88 \let\@EverySelectfont@Init\undefined
89 }
```

Finally we insert `\EverySelectfont@Init` into `\begin{document}`.

```
90 \AtBeginDocument{\@EverySelectfont@Init}
91 </fallback>
```

## 6 Acknowledgements

David Carlisle provided the solution for my problems with `\CheckCommand`. Thanks to the L<sup>A</sup>T<sub>E</sub>X-Project-Team for creating solutions which made this an obsolete package. Special thanks to Ulrike Fischer to keep the maintainer up to date.

## References

- [1] Frank Mittelbach. The `lthipout` package.  
<http://mirrors.ctan.org/macros/latex/base/lthooks-doc.pdf>
- [2] Frank Mittelbach and Rainer Schöpf. The `tracefnt` package for use with the new font selection scheme.  
<http://mirrors.ctan.org/macros/latex/base/ltfssstrc.dtx>. L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> package.
- [3] Martin Schröder. The `ragged2e` package. <http://mirrors.ctan.org/macros/latex/contrib/supported/ms/ragged2e.dtx>. L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> package.

## Change History

v1.00	General: New .....	1	v1.1	General: New address, LPPL 1.3 ..	1
v1.01	General: Fixed use of <code>\newline</code> in title. ....	1	v1.2	<code>\@EverySelectfont@Init:</code> Check for CJK. ....	3, 4
v1.02	General: Minor documentation enhancements .....	1	v2.0	General: Information on new kernel methods .....	1
v1.03	General: Moved to LPPL .....	1			